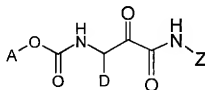


AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A compound of Formula (I):



(I)

or a salt or solvate thereof:
wherein

A is the group defined by $(Q^3)-(Q^2)_n-(Q^1)-(Q)_m$, wherein

Q is CH₂ and m is 0, 1, or 2

Q¹ is C₃-C₇ cycloalkylene;

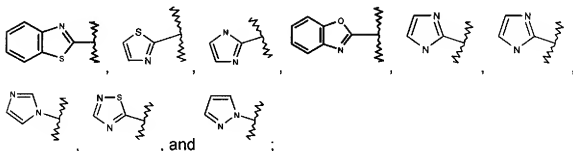
Q² is C₁-C₃ alkylene and n is 0 or 1, or

Q² is OR, where R is C₁-C₃ alkylene and n is 1,

Q² is SR, where R is C₁-C₃ alkylene and n is 1; or

Q² is N(R')R, where R' is hydrogen or C₁-C₆ alkyl, R is C₁-C₃ alkylene and n is 1; and

Q³ is aryl, heteroaryl, or aryl or heteroaryl substituted with at least one independently selected R¹ group, wherein said heteroaryl is selected from the group consisting of



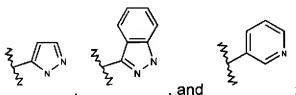
D is C₁-C₆ alkyl or C₁-C₆ alkyl substituted with -NR²R³;

Z is the group defined by -(X)_p-(X¹)_q-(X²), wherein

X is C(R')(R''), wherein R' is hydrogen or C₁-C₆ alkyl, R'' is hydrogen and C₁-C₆ alkyl, and p is 0, 1, or 2,

X¹ is C(O)OCH₂, wherein q is 0 or 1, and

X² is aryl, heteroaryl, or heterocyclyl wherein said ~~heteroaryl~~ heteroaryl or heterocyclyl is selected from:



R¹ is halo, C₁-C₆ alkyl, aryl, or C₁-C₆ haloalkyl;

R² is hydrogen or C₁-C₆ alkyl;

R³ is hydrogen, C₁-C₆ alkyl, -C(O)R⁴, or -S(O)₂NR⁵R⁶;

R⁴ is -NR⁵R⁶, and

R⁵ and R⁶ are independently selected from hydrogen or C₁-C₆ alkyl.

2-4. (Cancelled)

5. (Original) A compound as claimed in claim 1, wherein Q is CH₂ and m is 0, 1, or 2.

6. (Original) A compound as claimed in claim 1, wherein Q is CH₂ and m is 0 or 1.

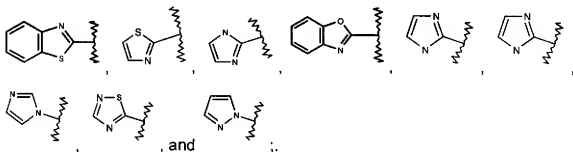
7. (Original) A compound as claimed in claim 1, wherein Q is CH₂ and m is 1.
8. (Original) A compound as claimed in claim 1, wherein Q¹ is C₃-C₇ cycloalkylene.
9. (Original) A compound as claimed in claim 1, wherein Q¹ is selected from the group cyclobutylene, cyclopentylene or cyclohexylene,
10. (Original) A compound as claimed in claim 1, wherein Q¹ is cyclobutylene.
11. (Original) A compound as claimed in claim 1, wherein Q² is C₁-C₃ alkylene and n is 0 or 1.
12. (Original) A compound as claimed in claim 1, wherein Q² is C₁-C₃ alkylene and n is 1.
13. (Original) A compound as claimed in claim 1, wherein Q² is OR, wherein R is C₁-C₃ alkylene and n is 1.
14. (Original) A compound as claimed in claim 1, wherein Q² is SR, wherein R is C₁-C₃ alkylene and n is 1.
15. (Original) A compound as claimed in claim 1, wherein Q³ is aryl or aryl substituted with at least one independently selected R¹ group.
16. (Original) A compound as claimed in claim 1, wherein Q³ is phenyl or phenyl substituted with at least one independently selected R¹ group wherein R¹ is halo or C₁-C₆ alkyl.
17. (Original) A compound as claimed in claim 16, wherein R¹ is halo.

18. (Cancelled)

19. (Original) A compound as claimed in claim 16, wherein R^1 is C_1 - C_6 alkyl.

20. (Cancelled)

21. (Previously presented) A compound as claimed in claim 1, wherein Q^3 is heteroaryl or heteroaryl substituted with at least one independently selected R^1 , wherein said heteroaryl is selected from the group consisting of



22-27. (Cancelled)

28. (Original) A compound as claimed in claim 1, wherein D is C_1 - C_8 alkyl.

29. (Original) A compound as claimed in claim 1, wherein D is n-butyl.

30-33 (Cancelled)

34. (Original) A compound as claimed in claim 1, wherein X is $C(H)(R'')$ where R'' is hydrogen and p is 0, 1, or 2.

35. (Original) A compound as claimed in claim 1, wherein X is $C(R')(R'')$ where R'' is hydrogen and p is 0, 1, or 2.

36. (Original) A compound as claimed in claim 1, wherein X is C(H)(R'') where R'' is hydrogen and p is 0 or 1.

37. (Original) A compound as claimed in claim 1, wherein X is C(H)(R'') where R'' is hydrogen and p is 0.

38. (Original) A compound as claimed in claim 1, wherein X is C(H)(R'') where R'' is -CH₃ and p is 1.

39. (Original) A compound as claimed in claim 1, wherein X¹ is C(O)OCH₂, wherein q is 1.

40. (Original) A compound as claimed in claim 1, wherein X¹ is C(O)OCH₂, wherein q is 0.

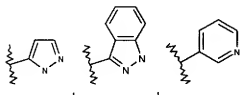
41. (Original) A compound as claimed in claim 1, wherein X² is aryl.

42. (Original) A compound as claimed in claim 1, wherein X² is



43. (Cancelled)

44. (Original) A compound as claimed in claim 1, wherein X^2 is selected from the group



, or substituted derivatives thereof.

45. (Previously presented) A compound selected from the group consisting of:

1-benzylcyclobutyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

1-benzylcyclopentyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

benzyl(2S)-2-[(3S)-3-(((1-benzylcyclopentyl)oxy)carbonyl)amino]-2-oxoheptanoyl]amino}propanoate;

1-benzylcyclohexyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

(1-Benzylcyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

[1-(2-Phenylethyl)cyclobutyl]methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

[1-(3-Phenylpropyl)cyclobutyl]methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

(1-Benzylcyclopentyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

[1-(2,6-difluorobenzyl)cyclobutyl]methyl (1S)-5-[(methylamino)carbonyl]amino]-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

[1-(4-Fluorobenzyl)cyclobutyl]methyl (1S)-1-[oxo(1H-pyrazol-5-ylamino)acetyl]pentylcarbamate;

[1-(4-fluorobenzyl)cyclobutyl]methyl (1S)-1-[[[6-chloro-1H-indazol-3-yl]amino](oxo)acetyl]pentylcarbamate;

[1-(4-fluorobenzyl)cyclobutyl]methyl (1S)-5-[(dimethylamino)sulfonyl]amino]-1-(oxo{[(3-pyridinyl)methyl]amino}acetyl)pentylcarbamate;

1-[(1,3-Benzothiazol-2-yl)cyclopentyl (1S)-1-[oxo(1H-pyrazol-3-ylamino)acetyl]pentylcarbamate;

{1-[(4-phenyl-1,3-thiazol-2-yl)methyl]cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

(1-[(1-methyl-1H-imidazol-2-yl)sulfanyl]methyl)cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

{1-[(1,3-benzoxazol-2-ylsulfanyl)methyl]cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

{1-[(1,3-thiazol-2-yloxy)methyl]cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

(1-[(3-phenyl-1,2,4-thiadiazol-5-yl)oxy]methyl)cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

(1-[(1-phenyl-1H-imidazol-2-yl)sulfanyl]methyl)cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

[1-[(4-(4-methylphenyl)-1,3-thiazol-2-yl)oxy]methyl]cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

[1-[(5-(4-chlorophenyl)-1-methyl-1H-imidazol-2-yl)sulfanyl]methyl]cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

{1-[(4-methyl-1,3-thiazol-2-yl)methyl]cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

(1-{2-[(1-methyl-1H-imidazol-2-yl)sulfanyl]ethyl}cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate; and

(1-{3-[(1-methyl-1H-imidazol-2-yl)sulfanyl]propyl}cyclobutyl)methyl (1S)-1-(oxo{[(1R)-1-phenylethyl]amino}acetyl)pentylcarbamate;

or a salt or solvate thereof.

46. (Previously presented) A pharmaceutical composition comprising a therapeutically effective amount of a compound as claimed in claim 1 or a salt or solvate thereof and one or more of pharmaceutically acceptable carriers, diluents and excipients.

47. (Currently amended) A method of treating a disorder selected from osteoporosis, Paget's disease, hypercalcemia of malignancy, metabolic bone disease, osteoarthritis, rheumatoid arthritis, periodontitis, gingivitis, atherosclerosis, and neoplastic diseases associated with cathepsin K activity in a mammal, ~~said disorder being characterized by enhanced bone turnover which can ultimately lead to fracture~~, comprising: administering to said mammal a therapeutically effective amount of a compound as claimed in claim 1 or a salt or solvate thereof.

48-50. (Cancelled)

51. (Previously presented) A method of treating osteoporosis, comprising: administering to said mammal a therapeutically effective amount of a compound as claimed in claim 1 or a salt or solvate thereof.

52. (Previously presented) A method of treating osteoporosis, comprising: administering to said mammal therapeutically effective amounts of (i) a compound as claimed in claim 1, or a salt or solvate thereof and (ii) at least one bone building agent.